

Unit 3.3 Practice Solving systems using substitution

Solve each system by substitution.

$$\begin{aligned} 1) \quad & y = 2x - 5 \\ & y = -2x + 11 \end{aligned}$$

(4, 3)

$$\begin{aligned} 2) \quad & y = 7x + 4 \\ & y = -6x + 4 \end{aligned}$$

(0, 4)

$$\begin{aligned} 3) \quad & y = -8x - 12 \\ & y = x + 6 \end{aligned}$$

(-2, 4)

$$\begin{aligned} 4) \quad & y = 8x + 5 \\ & y = 4x + 1 \end{aligned}$$

(-1, -3)

$$\begin{aligned} 5) \quad & 8x - 6y = -18 \\ & y = 6x - 11 \end{aligned}$$

(3, 7)

$$\begin{aligned} 6) \quad & 3x - y = 13 \\ & y = 3x - 13 \end{aligned}$$

Infinite number of solutions

$$\begin{aligned} 7) \quad & y = 3x - 12 \\ & 2x + 3y = 19 \end{aligned}$$

(5, 3)

$$\begin{aligned} 8) \quad & -8x - 8y = 24 \\ & y = 5x + 9 \end{aligned}$$

(-2, -1)

$$\begin{aligned} 9) \quad & -8x + y = -15 \\ & -6x - 6y = -18 \\ & \text{(2, 1)} \end{aligned}$$

$$\begin{aligned} 10) \quad & x + 2y = 4 \\ & -2x - 4y = 3 \\ & \text{No solution} \end{aligned}$$

$$\begin{aligned} 11) \quad & x - 3y = 5 \\ & -x + 3y = 7 \\ & \text{No solution} \end{aligned}$$

$$\begin{aligned} 12) \quad & 3x + y = -4 \\ & 3x - 6y = -18 \\ & \text{(-2, 2)} \end{aligned}$$

$$\begin{aligned} 13) \quad & 3x - 3y = 9 \\ & -x - 6y = -17 \\ & \text{(5, 2)} \end{aligned}$$

$$\begin{aligned} 14) \quad & 5x - 2y = 3 \\ & 7x + 6y = 13 \\ & \text{(1, 1)} \end{aligned}$$

$$\begin{aligned} 15) \quad & -3x + 6y = 9 \\ & y = 3 \\ & \text{(3, 3)} \end{aligned}$$

$$\begin{aligned} 16) \quad & 6x + 3y = 0 \\ & -4x - 6y = -16 \\ & \text{(-2, 4)} \end{aligned}$$